

Notice of Allowability

Application No.

10/803,037

Applicant(s)

WOO, JONG HYUN

Examiner

MY-CHAU T. TRAN

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/21/2007.
2. ☒ The allowed claim(s) is/are 1-19, 21-31 and 33
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20070619.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

EXAMINER'S AMENDMENT

Application and Claims Status

1. Applicant's amendment and response filed 05/21/2007 are acknowledged and entered.
2. Claims 1-31 were pending. Applicants have amended claims 1, 2, 5, 6, 12, 16, 17, 19-22, 26, and 28-31; and added claims 32 and 33. No claims were cancelled. Therefore, claims 1-33 are currently pending and are under consideration in this Office Action.
3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David C. Oren on 06/14/2007.

The application has been amended as follows:

A) Please **cancel** Claims 20 and 32.

B) Claim 19 is rewritten as follows:

--" **A method for controlling an inverter pulse width modulation (PWM)**

frequency of a liquid crystal display (LCD), comprising:

identifying a frame frequency of the LCD by selecting one of a plurality of

frame frequencies based on a system environment wherein the a system

environment comprises electronic interference or noise, and outputting PWM information based on the identified frame frequency; and generating a PWM signal, based on the PWM information and brightness control information for an LCD lamp.”--

B) Claim 30 is rewritten as follows:

**--“ An apparatus configured to control an inverter pulse width modulation (PWM) frequency of a liquid crystal display (LCD), comprising:
a controller configured to select one of a plurality of different frame frequencies of the LCD based on a system environment wherein the a system environment comprises electronic interference or noise and to output PWM information based on the selected frame frequency for an LCD lamp; and
a PWM converter configured to generate a PWM signal based on the PWM information.”--**

B) Claim 33 is rewritten as follows:

**--“ A method for controlling an inverter pulse width modulation (PWM) frequency of a liquid crystal display (LCD), comprising:
identifying a frame frequency of the LCD by selecting one of a plurality of frame frequencies based on a system environment wherein the a system environment comprises electronic interference or noise, and outputting PWM information based on the identified frame frequency; and**

generating a PWM signal, based on the PWM information and brightness control information for an LCD lamp, wherein generating the PWM signal comprises:

leveling up the PWM information by a predetermined level;

outputting a first signal having a frequency corresponding to the leveled PWM information; and

comparing the first signal with the brightness control information to output the PWM signal.”--

4. The following is an examiner’s statement of reasons for allowance:

The instant claims are allowed for the reason that the cited prior arts does not teach or fairly suggest the presently claimed device and method as follows:

a) For claims 1-18, the limitation of “*control means for changing an LCD frame frequency of the LCD based on a system environment, and outputting information based on the changed LCD frame frequency for an LCD inverter, wherein the system environment comprises electronic interference or noise*” of claim 1 is not taught or suggested by the cited prior art.

b) For claims 19 and 21-29, the method step limitation of “*identifying a frame frequency of the LCD by selecting one of a plurality of frame frequencies based on a system environment wherein the a system environment comprises electronic interference or noise, and outputting PWM information based on the identified frame frequency*” of claim 19 is not taught or suggested by the cited prior art.

b) For claims 30-31, the limitation of “*a controller configured to select one of a plurality of different frame frequencies of the LCD based on a system environment wherein the a system environment comprises electronic interference or noise and to output PWM information based on the selected frame frequency for an LCD lamp*” of claim 30 is not taught or suggested by the cited prior art.

b) For claim 33, the method step limitation of “*identifying a frame frequency of the LCD by selecting one of a plurality of frame frequencies based on a system environment wherein the a system environment comprises electronic interference or noise, and outputting PWM information based on the identified frame frequency*” of claim 33 is not taught or suggested by the cited prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MY-CHAU T. TRAN whose telephone number is 571-272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Richard A. Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MCT/
June 19, 2007

A handwritten signature in black ink, appearing to read 'R. Hjerpe', with a stylized, cursive script.

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600